Texas Department of Health
Osteoporosis Advisory Committee

Strategic Plan

Vision: The Osteoporosis Advisory Committee members are committed to promoting a quality of life free from the ravages of osteoporosis for all citizens of Texas.

Mission: Educate the public about the causes and risk factors of osteoporosis by promoting awareness of the importance of early detection and prevention, and identifying the most cost effective treatment options.

Goal: Eliminate osteoporosis as a cause of major illness for the citizens of Texas.

Focus Areas:

- Public awareness and education
- Healthcare provider education
- Policies and environmental interventions
- Partnerships
- Data and evaluation

Targeted Audience Segments:

- Children and youth
- Young adult and middle age
- Mature adults

Section I: Cross-Cutting Recommendations

Background: Osteoporosis, the most commonly occurring metabolic bone disease, is a major public health threat for more than 28 million Americans. In the United States today, 10 million individuals already have the disease and 18 million more have low bone mass (osteopenia), placing them at increased risk for osteoporosis. In Texas, almost three million individuals have osteoporosis or osteopenia. In the year 2000, it is estimated that osteoporosis caused almost 72,000 bone fractures in Texas, at a cost of $977 million. Over the next decade, cumulative total fractures could reach almost 800,000 and cumulative total costs may exceed $10.8 billion.

Osteoporosis is an age-related bone disease that manifests itself in an increased risk of fracture due to the loss of bone mass. Because it is a silent disease that typically goes undetected until a fracture occurs, osteoporosis presents an enormous public health challenge, as well as a substantial opportunity for effective preventive measures. As in cardiovascular disease and other chronic illnesses, osteoporosis has its origins in childhood. Throughout childhood and into our twenties, bone formation exceeds bone resorption. In these years we are building stronger and healthier bones.

After about age thirty, however, this process starts to reverse, and bone resorption slightly outstrips bone formation. By age thirty, most of us have achieved our peak bone mass, and then we start to lose bone very slowly. Menopause, which generally occurs in women aged 45 to 55, triggers increased bone loss because of the decreased production of estrogen. The risk of osteoporosis increases with age. Currently, almost three-fourths of osteoporosis occurs in older Texans. Clearly, public health efforts should include interventions aimed at all age groups throughout the lifespan.

Strategies for good bone health should start early in life and continue until we die. We need to teach our children and grandchildren the importance of healthy diet, adequate calcium, exercise and avoidance of toxic behaviors, such as smoking and heavy drinking. For those of us in middle age and beyond, we need to continue to live by these fundamental principles, and consult with our physicians to help us obtain the healthiest skeletons we can achieve. For our elderly population, we also need to prevent fractures by lowering the risk of falls and making the home and community environments safer places to be. With these measures taken, we can look forward to brighter futures free of pain, disability, disfigurement and dependency.

A. Public Awareness and Education – The Osteoporosis Advisory Committee recommends continuing awareness and education activities that will provide accurate and persuasive information about the prevention, detection and treatment of osteoporosis. The goal of this recommendation is to create a broad public awareness of what osteoporosis is and that:

- Osteoporosis potentially affects every Texan;
- Osteoporosis can be prevented, diagnosed and treated;
- There are established risk factors for developing osteoporosis and osteopenia;
- There are available prevention, screening, and treatment services; and
- It is important to take individual responsibility for bone-healthy lifestyles and behaviors.

Specific approaches tailored to each age group should be employed.

B. Healthcare Provider Education – The Osteoporosis Advisory Committee recommends continuing education for practitioners and other healthcare professionals that address the key issues of osteoporosis prevention, screening, and treatment at various life stages. The committee recommends a concerted effort to educate providers on the importance of adult first fracture and long-term corticosteroid use as significant markers for osteoporosis.

C. Policies and Environmental Interventions – The Osteoporosis Advisory Committee recommends that quality assurance standards be adopted and followed to provide for:

- Consistency in bone densitometry equipment calibration, accuracy, and safety; and
- Training and supervision of individuals conducting and evaluating bone mineral density tests.

The committee recommends the adoption of hospital and out-patient surveillance and evaluation programs for patients with a first adult fracture and/or long-term corticosteroid use.

The committee recommends the implementation of interventions aimed at reducing the incidence of falls and resulting fractures.

D. Partnerships – Because relationships are the foundation for successful health education interventions, the Osteoporosis Advisory Committee recommends the establishment and maintenance of partnerships with grassroots community organizations and statewide associations who share their vision, mission and goals. Collaboration is key to disseminating information, implementing pilot projects, and ultimately reaching more Texans with vital health messages.

E. Data and Evaluation – The Osteoporosis Advisory Committee recommends that all activities are evaluated for process and outcome.

Section II: Children and Youth Recommendations

Background: While the prevalence of osteoporosis increases with age, the disease has clear pediatric antecedents. Bone mass is accumulated during childhood and young adulthood, reaching its peak during a person's early 30s. Therefore, osteoporosis prevention efforts must be initiated when children are very young to promote optimal accumulation of bone mass, and must continue into adulthood. The Osteoporosis Advisory Committee recommends a two-pronged approach to educating children on good bone health: through schools and healthcare providers.

Recommendation 1: Work with the State Board of Education to promote mandating daily physical activity in elementary schools, and adding an osteoporosis component to the coordinated school health program implementation requirement by 2007, in accordance with Senate Bill 19.

Projected impact: Students will learn the basics of good bone health and actively work to build strong bones through daily physical activity.

Recommendation 2: Provide continuing education opportunities and more information on bone health and screening tools to healthcare providers who care for children.

Projected impact: Providers will have tools to educate and evaluate children re: their bone health.

Section III: Young Adult and Middle Age Recommendations

Background: Young adults and middle-age people should be a high priority for targeting osteoporosis prevention. Adults have a direct influence on their children, their aging parents, and their own need to maintain optimal bone mass. The Osteoporosis Advisory Committee has been very effective in developing culturally appropriate adult education materials, and in conducting awareness campaigns through the print, television and radio mediums. Priorities for 2002 – 2003 focus on targeting the worksite as an important audience for awareness and education; continuing education for practitioners and other professionals; bone density certification; and blanketing the state with the previously developed adult education materials.

Recommendation 1: Target the worksite for awareness and education on the importance of maintaining good bone health and preventing osteoporosis, falls and fractures. A worksite education kit has been developed and is ready for distribution. A marketing/distribution plan targeting large employers will be developed. The plan will include an evaluation component.

Projected impact: Increased knowledge among working Texans will result in better compliance with lifestyle recommendations for osteoporosis prevention.

Recommendation 2: Provide continuing education opportunities for practitioners and other professionals on the prevention, detection and treatment of osteoporosis. Include information on the importance of adult first fracture and long-term glucocorticoid use as significant markers for osteoporosis. The Osteoporosis Advisory Committee has been effective in reaching healthcare providers through their biennial educational summits. The committee will conduct their next summit in June 2003, and will include presentations on hospital and outpatient surveillance programs designed to flag and evaluate adult patients presenting with a first fracture and/or those on prolonged steroid use.

Projected impact: A healthcare system that is more aware of the disease process can greatly assist in the reduction of fracture rates, hospitalizations, and nursing home admissions. Further societal cost savings are possible, but less directly measurable, by maintaining the productivity and independence of people at risk for fractures and reducing caregiver costs.

Recommendation 3: The Texas Department of Health Bureau of Licensing and Compliance should require all individuals who operate Dual Energy X-ray Absorptiometry (DEXA) machines to obtain certification in bone densitometry through passing a written examination given by either the American Registry of Radiologic Technologists (ARRT) or the International Society for Clinical Densitometry (ISCD) within one year of performing bone densitometry procedures.

Projected impact: The provision of quality assurance for osteoporosis bone densitometry testing.

Recommendation 4: Continue to increase awareness of osteoporosis prevention, detection and treatment. The culturally appropriate adult education materials were distributed, in 2002, to more than 420,000 Texans. Additionally, in 2002, education efforts targeted Houston's Asian population. The committee's osteoporosis materials were translated into Chinese and Vietnamese and will be distributed through existing channels in the Asian community. The Texas Department of Health's Osteoporosis Education Program partnered the department's Breast and Cervical Cancer Control Program (BCCCP) and the National Asian Women's Health Organization (NAWHO) to plan a conference to be held in the summer of 2003. The conference will include a segment on osteoporosis.

Projected impact: Increased awareness among Texans will result in better compliance with lifestyle recommendations for osteoporosis prevention.

Section IV: Mature Adult Recommendations

Background: Osteoporosis-related fractures are a major cause of illness and disability for elderly Americans. Fractures often result in hospitalization and subsequent care at home or in nursing facilities – at high cost to state healthcare programs. Early diagnosis and treatment may prevent many of these fractures. For this population, the Osteoporosis Advisory Committee recommends continued awareness/education, with particular emphasis on fall prevention; provider education to include adult first fracture and prolonged glucocorticoid use as indicators for evaluation of osteoporosis; and a focus on preventing and reducing fractures in nursing home residents.

Recommendation: Develop partnerships to initiate pilot project(s) on preventing and reducing fractures in nursing home residents.

Projected impact: Currently, almost three-fourths (74%) of osteoporosis costs occur in Texans aged 75 and older. This share will increase as the Texas population ages. The nursing home population is a high-risk group for falls, fractures and second or repeat fractures. Active intervention to prevent fractures in this population will help contain healthcare and human costs.